



**OHM Remediation  
Services Corp.**  
A Subsidiary of OHM Corporation

**CONTRACTOR CLOSE-OUT REPORT  
SITE CLEAN-UP AND REMOVAL ACTIONS  
FORMER NAVAL TRAINING CENTER - BAINBRIDGE  
PORT DEPOSIT, MARYLAND**

**VOLUME 3  
AOC-2 SALVAGE YARD BINS AND GATE 27 ASH PILE AREA**

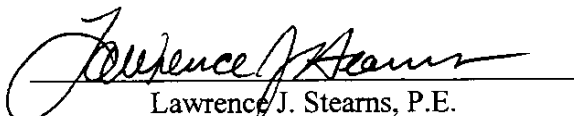
Prepared for:

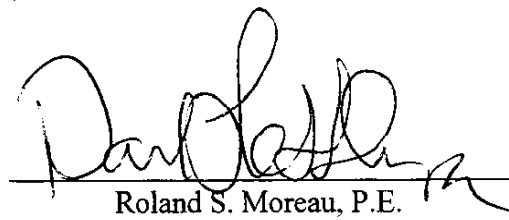
DEPARTMENT OF THE NAVY  
Contract No. N62470-93-D-3032: D.O. 137  
Engineering Field Activity - Chesapeake  
Naval Facilities Engineering Command  
901 M Street S.E. (Building 212)  
Washington, D.C. 20374-5018

Prepared by:

OHM Remediation Services Corporation  
The IT Group  
2790 Mossie Boulevard  
Monroeville, Pennsylvania 15146-2792

Reviewed by:

  
Lawrence J. Stearns, P.E.  
Project Manager

  
Roland S. Moreau, P.E.  
Program Manager

October 15, 1999  
OHM Project 919568

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1	PROJECT CLEANUP LEVELS APPLIED AT VARIOUS NTCB LOCATIONS	1-2

# ***LIST OF ACRONYMS***

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<u>Acronym</u>	<u>Title</u>
OHM	OHM Remediation Services Corporation, a subsidiary of The IT Group
EPA	U.S. Environmental Protection Agency – Region III
MDE	Maryland Department of the Environment
NTCB	Former Naval Training Center Bainbridge
PCB	polychlorinated biphenols
Arochlor	a chemical form of PCB's
TSCA	Toxic Substances Control Act
mg/kg	milligram per kilogram [parts per million]
TSD	treatment, storage, and disposal facility
TPH	Total Petroleum Hydrocarbon
DDT	Dichlorodiphenyltrichloroethane
DDE	Dichlorodiphenyldichloroethylene
DDD	Dichlorodiphenyldichloroethane
TCDD	Tetrachlorodibenzo- <i>p</i> -dioxin
ppt	parts per trillion [picograms per gram]
TCE	Trichlorobenzene
DCE	Dichlorobenzene

## ***1.0 INTRODUCTION***

---

OHM Remediation Services Corp. [OHM] was contracted by the Navy to perform environmental remediation at the former Naval Training Center Bainbridge [NTCB] near Port Deposit, Maryland. This report documents a portion of the work performed on this project by OHM under federal contract N62470-93-D-3032, Delivery Order No. 137 issued 5 February 1997. Specifically, this report addresses the remediation at AOC-2: Salvage Yard Bins located near Gate 14, and the Ash Pile located near Gate 27. Refer to drawing RD-01 for locations.

### **1.1 PROJECT BACKGROUND**

Design and construction of NTCB began in 1942 initially building from the property of the former Tome Institute School. NTCB served as a boot camp for Navy recruits during World War II and the Korean War and was permanently closed in 1976. The facility encompasses approximately 1,250 acres and consists of roads, drill fields, and about 60 remaining buildings. Most buildings and structures within NTCB were demolished during the last 10 years. Since deactivation, NTCB has become extensively overgrown and has been little used in the past two decades.

The U.S. Department of the Navy currently owns NTCB, but transfer of ownership to the State of Maryland is in progress pending resolution of various environmental and other issues. State and local agencies are planning to develop NTCB, possibly for commercial and residential use. The remediation discussed in this report is part of a larger environmental remediation effort by the Navy at NTCB.

### **1.2 GENERAL SCOPE OF WORK**

The scope of work for AOC-2 Salvage Yard Bins included excavating soil to a 1-foot depth from four roughly 20-foot square grids in the East Bin and two grids in the West Bin. The excavation continued until the cleanup levels had been achieved for total lead and antimony, and for the polyaromatic hydrocarbon Benzo(a)pyrene. After this work was completed, approximately 1-foot of additional cinder and soil material was removed from the entire floor of the East Bin due to potential pesticide contamination.

The scope of work for the Gate 27 Ash Pile included excavating ash material to native soils and then deeper as needed to achieve the TPH soil cleanup level. All wastes were non-hazardous and were disposed in off-site landfills.

During the execution of this work, OHM used the following subcontractors for waste disposal or analytical services.

- Non-hazardous solid waste disposal – BFI Conestoga Landfill – New Morgan Landfill Co., Inc. P.O. Box 128, Mineview Drive Extension, Morgantown, Pennsylvania 15543 (610-286-6844).
- Laboratory analytical work - Gascoyne Laboratories, Inc., 2101 Van Deman Street, Baltimore, Maryland 21224 (410-633-1800).

### 1.3 **PROJECT CLEANUP LEVELS**

The project cleanup levels listed in Table 1 were established by the Navy with the concurrence of the EPA and MDE. Remediation continued until all of the confirmation analyses gave results that did not exceed the cleanup level(s) for the particular chemical(s) of concern at a specific location. Although laboratory analyses other than those listed in Table 1 may have been performed and may be reported in this document, the Table 1 values were the only cleanup levels specifically established for NTCB.

For the AOC-2: Salvage Yard Bins, the chemicals of concern for cleanup levels were:

- Total Lead
- Total Antimony
- Benzo(a)pyrene

For the Gate 27 Ash Pile, the chemicals of concern for cleanup levels were:

- Total Petroleum Hydrocarbon

**Table 1: Project Cleanup Levels Applied at Various NTCB Locations**

<b>Chemical of Concern</b>	<b>Cleanup Level</b>	<b>Units</b>	<b>Units</b>	<b>Intended Matrix</b>
Total Petroleum Hydrocarbons	100	mg/kg	ppm	Soil
DDT	4.3	mg/kg	ppm	Soil
DDE	16.3	mg/kg	ppm	Soil
DDD	23.1	mg/kg	ppm	Soil
Alpha Chlordane	4.1	mg/kg	ppm	Soil
Gamma Chlordane	4.1	mg/kg	ppm	Soil
Heptachlor Epoxide	0.4	mg/kg	ppm	Soil
Antimony	27	mg/kg	ppm	Soil
Lead	400	mg/kg	ppm	Soil
Benzo (a) pyrene	2.0	mg/kg	ppm	Soil
Total PCB	10	mg/kg	ppm	Soil
Total PCB	10	mg/kg	ppm	Concrete
Total PCB	10	mg/kg	ppm	Non-porous Surfaces
Total PCB	50	mg/kg	ppm	Encapsulated Concrete

## ***2.0 SUMMARY OF WORK PERFORMED***

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The following sections summarize the remediation work performed for the site cleanup action at AOC-2: Salvage Yard Bins and the Gate 27 Ash Pile. The locations are shown on drawing RD-01. The Salvage Yard Bins were used for storage of machinery and other equipment. The Ash Pile was a hillside dumping area for cinder and bottom ash from coal fired furnaces.

### **2.1 LOCATION INVESTIGATION AND INITIAL REMOVALS**

The Salvage Yard Bins were investigated by others and found to have certain metals and PAH's of concern above screening levels. The initial excavation areas and depths were determined during detailed discussions with the EPA and MDE.

The Ash Pile location was identified during geotechnical test pit investigations that were being performed for other reasons. The ash was found to be approximately 4 to 10-feet deep over about ½-acre of heavily wooded hillside. At the request of the EPA, four native soil samples were collected about 6-inches below the interface of the ash and native soils. At some of these locations, TPH concentrations were detected above the project cleanup levels prompting the removal of the ash material.

### **2.2 REMOVAL ACTION**

The following summarizes the impacted soil removal actions performed during the site remediation. During this work, close communication was maintained with the Navy, EPA, and MDE representatives regarding the remediation progress and decisions about confirmation analytics.

The six grids identified at the West and East Bins of the Salvage Yard were excavated for off-site disposal as non-hazardous waste. Also, an approximately 1 ½ foot thick layer of coal ash mixed with soil was excavated from the entire floor of the East Bin to a visually clean condition [i.e., the underlying clay soil was distinctly yellow verses the nearly black ash]. This material was also disposed off-site as non-hazardous waste. A variety of metal piping, equipment, and debris was collected for scrap recycling from the East Bin and the general area.

The ash material was excavated and disposed of as non-hazardous waste. Two areas required further remediation for TPH impacted soils following the results from the initial eight confirmation samples.

### **2.3 SITE RESTORATION**

The AOC-2: Salvage Yard Bins location was seeded with grass and mulched with straw following remediation. The Gate 27 Ash Pile area was regraded to drain, seeded with grass, and mulched with straw.

### **3.0 CLEANUP CONFIRMATION**

---

The following discussion summarizes the confirmation analyses that represent the two locations at the completion of remediation. The sample locations are shown on drawing RD-02.

#### **3.1 CONFIRMATION APPROACH**

This discussion is a synopsis of the approach to confirmation sampling and analyses that was presented in the OHM Work Plan Addendum No. 3: Soil Removal Actions dated 22-Jun-1999 for the AOC-2 Salvage Yard Bins and subsequent discussions in July 1999. The discussion on confirmation sampling and analyses for the Gate 27 Ash Pile area is a synopsis of the OHM Work Plan Addendum No. 2: Contaminated Soil Removal dated 22-Dec-1998.

At the AOC-2: Salvage Yard Bins, the excavations were to be 20-foot square grids centered on the still existing sampling stakes from previous investigations. This creates several grids that overlapped or went outside the bin walls into non-remediation areas. Confirmation sample locations were then uniquely identified for each excavation area.

In addition to dissimilar grid geometry, the chemicals of concern were specific to the sample location. Total lead was tested at each location, but total antimony was tested at one location, and PAH's were tested at three locations. Grab samples were used on the floors, but composite samples were used on excavation walls. One floor and one wall sample were performed per excavation.

When a composite sample was tested for waste disposal characterization, it was found that some pesticides were present in the East Bin above the project cleanup levels. Pesticides were then included in the final three floor confirmation samples in the East Bin.

At the Gate 27 Ash Pile location, following removal of the ash material to a visually clean condition, eight composite soil samples were collected from 0 to 6-inches deep at locations approved by MDE and the Navy. The composites were formed from five grab samples collected within a 20-foot diameter. These samples were tested for Total Petroleum Hydrocarbons.

#### **3.2 LABORATORY ANALYTICAL RESULTS**

There are 7 laboratory samples that represent the "left-in-place" condition at the AOC-2 Salvage Yard Bins, and 8 laboratory samples that represent the "left-in-place" condition at the Gate 27 Ash Pile Area. The Data Validation Report [Appendix C] contains a summary data table for these analytical results. These analyses may include several samples tested for compounds that do not have cleanup levels established for this project.

In the East Bin of the Salvage Yard, the total pesticides and polyaromatic hydrocarbons were below the laboratory reported detection limits for all compounds in all samples. In the West Bin, total lead concentrations were 44 mg/kg or less, total antimony was 10 mg/kg or less, and polyaromatic hydrocarbons were below laboratory reported detection limits for all compounds. At the Ash Pile, all of the eight TPH results were 62 mg/kg or less.



### **3.3 CLEANUP CONFIRMATION RESULTS**

All sample results were below the project cleanup levels given in Table 1. Based on these laboratory confirmation analytical results, the cleanup levels were achieved at both the AOC-2: Salvage Yard Bins and the Gate 27 Ash Pile.

***APPENDIX A***  
***PHOTOGRAPHS***

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**NTCB - Port Deposit, Maryland: Salvage Yard Cleanup Action  
Delivery Order No. 137**



**Photo 1. Salvage Yard East Bin - Viewing North 6/22/99**



**Photo 2. Salvage Yard West Bin - Viewing South 6/22/99**

**NTCB - Port Deposit, Maryland: Salvage Yard Cleanup Action  
Delivery Order No. 137**



**Photo 3. Metal Debris - Northeast Corner of Wast Bin 6/22/99**



**Photo 4. East Bin Facing South - Debris to the left 6/22/99**

**NTCB - Port Deposit, Maryland: Salvage Yard Cleanup Action  
Delivery Order No. 137**



**Photo 5. Excavation Area 2-SS-6 in West Bin 6/29/99**



**Photo 6. Excavation Area - 2-SS-7 in West Bin 6/29/99**

**NTCB - Port Deposit, Maryland: Salvage Yard Cleanup Action  
Delivery Order No. 137**



**Photo 7. Area 2-SS-4 - Initially Excavated Area in East Bin 6/29/99**



**Photo 8. Area 2-SS-14 - Initially Excavated Area in East Bin 6/29/99**

**NTCB - Port Deposit, Maryland: Salvage Yard Cleanup Action  
Delivery Order No. 137**



**Photo 9. Area 2-SS-14 - Initially Excavated Area in East Bin 6/29/99**



**Photo 10. Area 2-SS-15 - Initially Excavated Area in East Bin 6/29/99**

**NTCB - Port Deposit, Maryland: Salvage Yard Cleanup Action  
Delivery Order No. 137**



**Photo 11. East Bin Seeded and Mulched After Full Material Removal 7/28/99**



**Photo 12. West Bin Seeded and Mulched 7/28/99**

**NTCB - Port Deposit, Maryland: Salvage Yard Cleanup Action  
Delivery Order No. 137**



**Photo 13. Soil Stock Pile from East and West Bin Excavation 6/29/99**

**NTCB - Port Deposit, Maryland: Ash Pile Cleanup Action**  
**Delivery Order No. 137**



**Photo 1. Ash Pile Test Pit Excavation 5/6/98**



**Photo 2. Ash Pile Test Pit Excavation 5/6/98**

**NTCB - Port Deposit, Maryland: Ash Pile Cleanup Action  
Delivery Order No. 137**

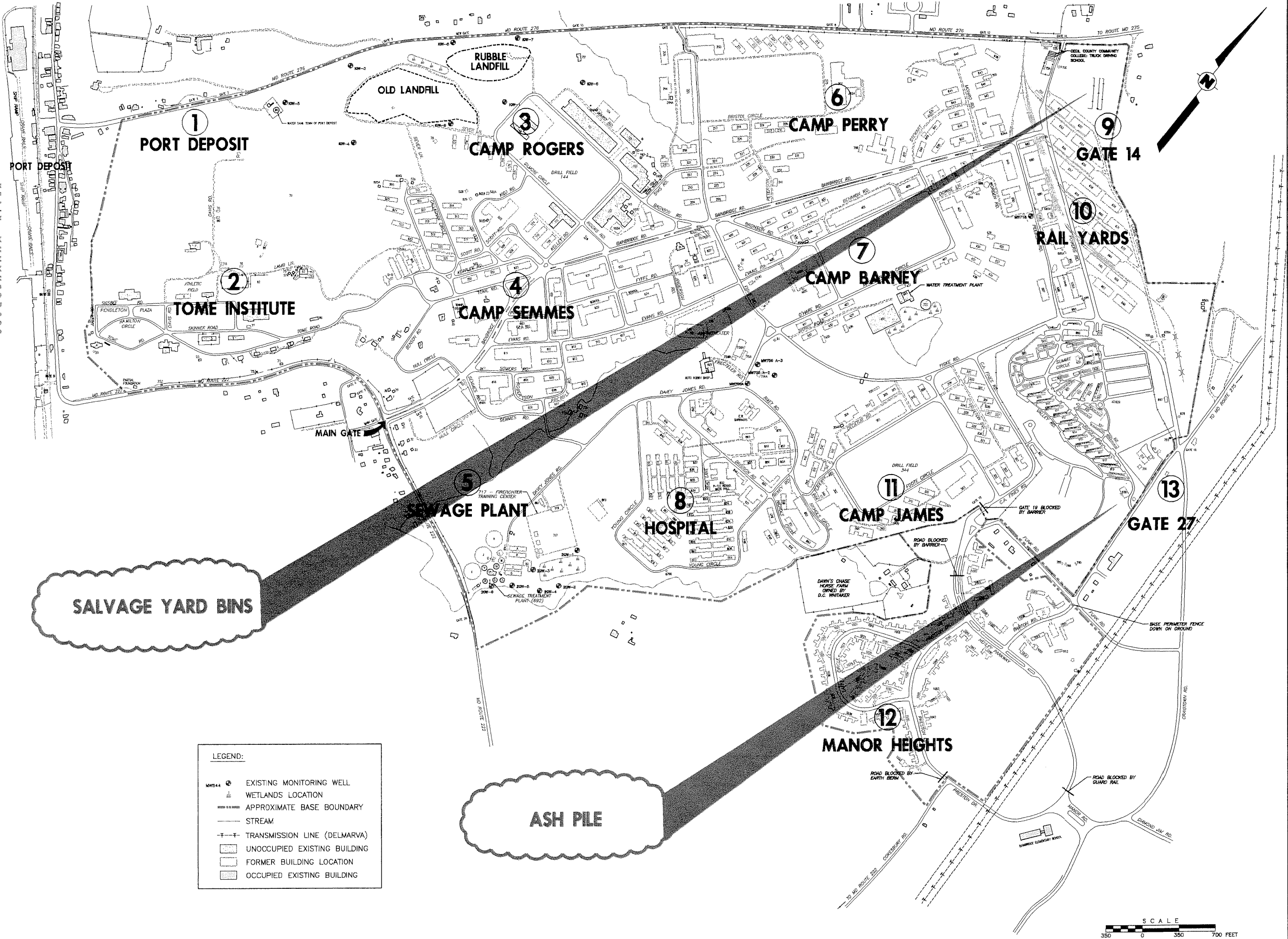


**Photo 3. Ash Pile Test Pit 5/6/98**

***APPENDIX B***  
***RECORD DRAWINGS***

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SUSQUEHANNA RIVER



- LEGEND:
- EXISTING MONITORING WELL
  - WETLANDS LOCATION
  - APPROXIMATE BASE BOUNDARY
  - STREAM
  - TRANSMISSION LINE (DELMARVA)
  - UNOCCUPIED EXISTING BUILDING
  - FORMER BUILDING LOCATION
  - OCCUPIED EXISTING BUILDING

SCALE  
350 0 350 700 FEET

OHM Remediation  
Services Corp.

DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND  
ATLANTIC DIVISION  
NAVAL STATION  
NAVAL TRAINING CENTER - BANGOR  
SITE CLEAN-UP AND REMOVAL ACTIONS

SCALE: AS SHOWN  
DELIVERY ORDER NO. 137  
CONSTRUCTION CONTRACT NO. N62470-93-D-3032  
NAVFAC DRAWING NO. RD-1

REVISIONS  
REV DATE BY CHK'D APPROV

DESIGNED BY M. WAINICK  
DRAWN BY M. WAINICK  
CHECKED BY L. STEARNS  
APPROVED BY L. STEARNS

LOCATION OF REMEDIATION SITE



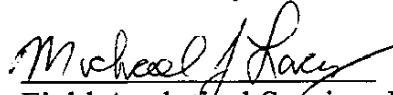
***APPENDIX C***  
***DATA VALIDATION REPORT***

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DATE: October 13, 1999

SUBJECT: Data Validation for The Salvage Yard and Ash Pile  
Former Naval Training Center-Bainbridge  
Port Deposit, Maryland

FROM: Michael J. Lacy, Ph.D.

  
Field Analytical Services Manager  
IT Corporation – Trenton, New Jersey

TO: Mary Cooke – Project Contact  
Hazardous Site Cleanup Division, 3HS13

## **OVERVIEW**

Two (2) soil samples were analyzed for gasoline and diesel range total petroleum hydrocarbons by EPA SW-846 Methods 8015. No site-specific Quality Control samples were analyzed. Gascoyne Laboratories, located in Baltimore, MD, performed the analyses.

## **SUMMARY**

The samples were analyzed successfully.

## **MAJOR PROBLEMS**

No major problems with the validity of the analytical data were found.

## **MINOR PROBLEMS**

No minor problems with the validity of the analytical data were found.

## **NOTES**

There are no notes associated with this report.

## **REPORT CONTENT STATEMENT**

These data were reviewed in accordance with USEPA Region III Modifications to National Functional Guidelines for Organic Data Review: Multi-Media, Multi-Concentration (OLMO1.0-OLMO1.9) for Volatile and Semivolatile Organic Compounds. The text of this report only addresses items that affect the validity of the data contained therein.

## ***ATTACHMENT A***

### ***Glossary of Data Qualifiers***

## *Glossary of Data Qualifier Codes*

### **Codes Relating to Identification**

(Confidence Concerning Presence or Absence of Compounds)

U = Not Detected. The associated number indicates the approximate sample concentration necessary to be detected.

(No Code) = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unreliable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm the presence or absence in future sampling efforts.

### **Codes Related to Quantitation**

(Can be used for both positive results and sample quantitation limits)

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

### **Other Codes**

Q = No analytical result.

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

***ATTACHMENT B***

***Data Summary Forms***

# Data Summary Table

Site: FNTC - Bainbridge - Ash Pile Confirmation Results

1 of 1

Lab: Gascoyne Laboratories

Reviewer: Michael J. Lacy, Ph.D.

Date: 07 October 1999

Report Number: 9903635

Sample I.D.	AP1A	AP-8A		
Matrix	Soil	Soil		
Units	mg/kg	mg/kg		
Date Sampled	6/26/99	6/26/99		
Time Sampled	1645	1130		
% Moisture	8.3	11		
pH	N/A	N/A		
Dilution Factor	1.0	1.0		
	Result	VQ	Result	VQ
GRO-TPH	<10		<10	
DRO-TPH	<10		<10	

VQ - Validation Qualifier

***ATTACHMENT C***

***Laboratory Reported Results***



# Gascoyne Laboratories, Inc.

Baltimore, MD 21224

(410) 633-1800

FAX NO.  
(410) 633-5443

www.gascoyne.com

## REPORT OF ANALYSIS

Page 2 of 6

Report no: 9903635

Client: IT/OHM Corporation

Sample Id: Submitted samples: AP-1A; grab collected on 26-Jun-99(16:45)

Laboratory Sample Number: 990014058

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
Diesel Range Organics(C10-C28)	<10 ppm-arb	10 ppm-arb	EPA-8015B	MST	29-Jun-99(17:44)
n-Pentacosane(surrogate)	84 % Rec	NA	EPA-8015B	MST	29-Jun-99(17:44)
<b>Sample/Test Notes:</b> Extraction started 06/28/99 19:16. Dilution factor = 1.					
oline Range Organics(C6-C10)	<10 ppm-arb	10 ppm-arb	EPA-8015B	NJ	29-Jun-99(11:13)
Trifluorotoluene(surrogate)	105 % Rec	NA	EPA-8015B	NJ	29-Jun-99(11:13)
Residue at 105°C	91.7 %-arb	0.01 %-arb	CLP-SOW-ILM04.0	DMW	07-Jul-99(14:20)



# Gascoyne Laboratories, Inc.

Baltimore, MD 21224

## REPORT OF ANALYSIS

(410) 633-1800

FAX NO.  
(410) 633-5443

www.gascoyne.com

Page 3 of 6

Report no: 9903635

Client: IT/OHM Corporation

Sample Id: Submitted samples: AP-8A; grab collected on 26-Jun-99(11:30)

Laboratory Sample Number: 990014059

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
Diesel Range Organics(C10-C28)	<10 ppm-arb	10 ppm-arb	EPA-8015B	MST	29-Jun-99(18:30)
n-Pentacosane(surrogate)	88 % Rec	NA	EPA-8015B	MST	29-Jun-99(18:30)
<b>Sample/Test Notes:</b> Extraction started 06/28/99 19:16. Dilution factor = 1.					
Line Range Organics(C6-C10)	<10 ppm-arb	10 ppm-arb	EPA-8015B	NJ	29-Jun-99(09:39)
Trifluorotoluene(surrogate)	99 % Rec	NA	EPA-8015B	NJ	29-Jun-99(09:39)
Residue at 105°C	89.0 %-arb	0.01 %-arb	CLP-SOW-ILM04.0	DMW	07-Jul-99(14:20)

***ATTACHMENT D***

***Laboratory Reported Tentatively Identified Compounds***

(Not Applicable)

***ATTACHMENT E***

***Support Documentation***



# Gascoyne Laboratories, Inc.

Baltimore, MD 21224

## REPORT OF ANALYSIS

(410) 633-1800

FAX NO.  
(410) 633-5443

www.gascoyne.com

Page 1 of 6

Report No: 9903635

IT/OHM Corporation  
2790 Mosside Blvd.  
Monroeville, PA 15146

Attn: Larry Stearns

This report of analysis contains test results for the following samples submitted to Gascoyne Laboratories, Inc. for project BAINBRIDGE:

Client Sample I.D.,	Sample Type	Lab Sample No.	Received by Gascoyne
AP-1A; grab, 26-Jun-1999(1645)	Soil	990014058	28-Jun-1999
AP-8A; grab, 26-Jun-1999(1130)	Soil	990014059	28-Jun-1999
UST-COMP; comp, 28-Jun-1999(1342)	Groundwater	990014060	28-Jun-1999

This Report contains the following:

- A) Cover Letter
- B) Test Results
- C) Chain-of-Custody

All samples were analyzed following EPA protocols and other recognized methodologies as specified in the report. All laboratory Quality Control(QC) data associated with this report are within established control limits unless otherwise noted in this report.

Gascoyne Laboratories, Inc. laboratory identification numbers:

Maryland :109; Delaware: MD015; Virginia: 00152; New Jersey: 60637; Pennsylvania: 68-339;  
New York: 11158; A2LA: 410.01; AIHA:8885; US Army Corps of Engineers;  
and EPA ICR: ICRMD003.

The analyses specified in this report may or may not be included in the scopes of the above listed certifications.

This cover page is an integral part of this report and must be included with all copies of this report.

Final report reviewed by: James H. Newman  
James H. Newman, Client Services Manager

7/20/99  
Report issue date

**CASE NARRATIVE  
GASCOYNE LABORATORIES, INC.**

Report Number: 9903635-QC

July 15, 1999

Report To: OHM/TT  
2790 Mosside Blvd.  
Monroeville, PA 15146

Page 1 of 2

Project: Bainbridge 919568

Date Samples Received: June 28, 1999

Sample Numbers	Sampling Date	Matrix	Laboratory ID
AP-1A	06/26/99	Soil	990014058
AP-8A	06/26/99	Soil	990014059
UST-COMP	06/26/99	Aqueous	990014060

The samples were collected by the client and were transported to Gascoyne Laboratories via Gascoyne Laboratories courier. The courier relinquished the samples to Gascoyne personnel in the sample control department for log-in. All sample containers were checked and it was noted that the containers were in satisfactory condition with the following exceptions:

1. The container provided for TCLP metals analysis for sample 990014060 was received acid-preserved. The client was contacted and a decision was made to analyze the sample for total RCRA metals.

NOTE: The client was contacted regarding apparent headspace in the two submitted soil sample bottles. Upon receipt, the bottles were shaken to determine if there was a shifting of the soil, indicating headspace. Both bottles seemed not to be as full as possible and the client was notified that the Gasoline Range Organics analysis would be footnoted regarding the apparent headspace. Upon analysis however, the laboratory department did not see any significant headspace, so the analysis was not footnoted. The samples did contain small rocks that may have moved slightly, giving the impression of space in the sample bottle. It is impossible to accurately determine the amount of headspace in any sample bottle until the bottle is actually opened at the time of analysis.

The following requested test parameters were performed by Gascoyne Laboratories:

- \* Petroleum Hydrocarbon analysis (Gasoline Range and Diesel Range), using EPA Method 8015B
- \* PCBs analysis, using EPA Method 8082
- \* Volatiles analysis, using EPA 8260A
- \* Metals analysis, using EPA Method 6010B, 7470A

Reference: Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Office of Solid Waste and Emergency Response, USEPA, Wash., DC, November 1986; Final Update I (07/92), Final Update II (09/94), Final Update III (12/96)

NOTE: The Chain-of-Custody indicated a request for the analysis of the samples for Lubricating Oil Range Organics. This test was deleted after discussion with the client.

The client requested Matrix Spike/ Matrix Spike Duplicate analysis for sample 990014059 and 990014060. Insufficient sample volume was submitted for sample 990014060 for MS/MSD for all analyses. Batch quality control data or duplicate Laboratory Control Sample data is provided for some tests.

**CASE NARRATIVE  
GASCOYNE LABORATORIES, INC.**

Report Number: 9903635-QC  
Report To: OHM/IT  
2790 Mosside Blvd.  
Monroeville, PA 15146

July 15, 1999  
Page 2 of 2

Project: Bainbridge 919568

All laboratory quality control parameters were met with the following exceptions:

1. Matrix Spike and Matrix Spike Duplicate recoveries, sample 990014060- EPA Method 6010B Arsenic and Selenium analyses: The recoveries of the Matrix Spikes and Matrix Spike Duplicates were outside limits of acceptability for both elements. The recovery of the Laboratory Control Sample was acceptable for both elements. The sample was analyzed in duplicate and a dilution test was also performed on this sample with acceptable results. The sample was post-digestion spiked at several dilutions with acceptable recoveries. The sample data was not flagged.
2. Laboratory Control Sample recoveries for Trichloroethene and Toluene - EPA Method 8260B: The recoveries of Trichloroethene and Toluene in the LCS were above the upper limit of acceptability for each compound. The sample was non detect for these compounds. The sample data was not flagged.

Enclosed are the following:

1. Report of Analysis
2. Chain-of-Custody and Cooler Receipt Form
3. Case Narrative
4. Quality Control Data Package - 390 pages

GASCOYNE LABORATORIES, INC.



June A. Main  
Quality Assurance Officer



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

ANALYSIS REQUEST AND  
CHAIN OF CUSTODY RECORD

Reference Document #  
Page 1 of 1

559825

Project Name/No. 1 Bainbridge 919568 Samples Shipment Date 7 6/28/99  
Sample Team Members 2 Treater/Klinger Lab Destination 8 Gascoyne Labs  
Profit Center No. 3 Lab Contact 9 Tina Kelly @ 139  
Project Manager 4 L. Stearns Project Contact/Phone 12 Dick Treater  
Purchase Order No. 6 919568701 Carrier/Waybill No. 13 Lab pickup  
Required Report Date 11 3 days

Bill to: 5 IT Corp  
2790 Mosside Blvd  
Monroeville, PA 15146  
412-380-0699  
Report to: 10 Fax to Larry Stearns  
IT Corp  
2790 Mosside Blvd  
Monroeville, PA 15146

ONE CONTAINER PER LINE

Sample Number <sup>14</sup>	Sample Description/Type <sup>15</sup>	Date/Time Collected <sup>16</sup>	Container Type <sup>17</sup>	Sample Volume <sup>18</sup>	Pre-servative <sup>19</sup>	Requested Testing Program <sup>20</sup>	Condition on Receipt <sup>21</sup>	Disposal Record No. <sup>22</sup>
1098 AP-1A*	Grav Ash Pile Soil center of grid	6/26/99 1645	1-8oz	8oz	4°C	Total Petroleum Hydrocarbons (TPH) SW-846 Meth 8015 Mod (GRO, DRO, LRO)		TK 6/29/99
1099 AP-8A*	Grav Ash Pile Soil center of grid	6/26/99 1130	1	1	1			MS/MSD
1000 UST-comp	Composite of TANK WATER	6/28/99 1342	3-32oz 3-4oz	3-32oz 3-4oz	4°C	TPH-GRO, DRO, LRO VOA, PCBs, TOX metals (PCRA)		MS/MSD
						PL 8260 Total		
	* Headspace.	Footnote report per Larry Stearns						
		Cancel LRO per Larry Stearns						

Special Instructions: <sup>23</sup> Fax prelim results to Larry Stearns @ 412-380-0699

Possible Hazard Identification: <sup>24</sup> Petroleum hydrocarbons  
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒  
Sample Disposal: <sup>25</sup> Return to Client ☐ Disposal by Lab ☒ Archive \_\_\_\_\_ (mos.)

Turnaround Time Required: <sup>26</sup> Normal ☐ Rush ☒ 3 day  
QC Level: <sup>27</sup> I ☐ II ☐ III ☒ Project Specific (specify): Navy NFESC Level C

1. Relinquished by <sup>28</sup> Dick Treater (Signature/Affiliation)	Date: 6/28/99 Time: 1500	1. Received by <sup>28</sup> [Signature] (Signature/Affiliation)	Date: 6/28/99 Time: 1650
2. Relinquished by [Signature] (Signature/Affiliation)	Date: 6/28/99 Time: 1650	2. Received by [Signature] (Signature/Affiliation)	Date: 6-28-99 Time: 1650
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: <sup>29</sup> Fax results also to Dick Treater 410-378-3232 and Frank Zepka 202-433-7018

## **OVERVIEW**

Two (2) soil samples were analyzed for lead, two (2) soil samples were analyzed for antimony and lead, and one of the latter samples was also analyzed for polyaromatic hydrocarbons (PAHs) by EPA SW-846 Methods 6010 (antimony, lead) and 8270 (PAHs). No site-specific Quality Control sample were analyzed. Gascoyne Laboratories, located in Baltimore, MD, performed the analyses.

## **SUMMARY**

The samples were analyzed successfully.

## **MAJOR PROBLEMS**

No major problems with the validity of the analytical data were found.

## **MINOR PROBLEMS**

No minor problems with the validity of the analytical data were found.

## **NOTES**

- The laboratory requested a change from Method 8310 to Method 8270C, which OHM agreed to.
- 4-Chloro-3-methylphenol and 4-nitrophenol were recovered high in both the semivolatile matrix spike and matrix spike duplicate analyses. The laboratory control sample recoveries for these compounds were acceptable. Since they are not polyaromatic hydrocarbons, the analytical results were accepted without qualification.

## **REPORT CONTENT STATEMENT**

These data were reviewed in accordance with USEPA Region III Modifications to National Functional Guidelines for Organic Data Review: Multi-Media, Multi-Concentration (OLMO1.0-OLMO1.9) for Semivolatile Organic Compounds, and the USEPA Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses. The text of this report only addresses items which affect the validity of the data contained therein.

## ***ATTACHMENT A***

### ***Glossary of Data Qualifiers***

### *Glossary of Data Qualifier Codes*

#### **Codes Relating to Identification**

(Confidence Concerning Presence or Absence of Compounds)

U = Not Detected. The associated number indicates the approximate sample concentration necessary to be detected.

(No Code) = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unreliable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm the presence or absence in future sampling efforts.

#### **Codes Related to Quantitation**

(Can be used for both positive results and sample quantitation limits)

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

#### **Other Codes**

Q = No analytical result.

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

***ATTACHMENT B***

***Data Summary Forms***

## Data Summary Table

Site: FNTC - Bainbridge - Salvage Yard Confirmation Results

1 of 2

Lab: Gascoyne Laboratories

Reviewer: Michael J. Lacy, Ph.D.

Date: 07 October 1999

Report Number: 9903661

Sample I.D.	2-SS-6		2-SS-6W		2-SS-7		2-SS-7W	
Matrix	Soil		Soil		Soil		Soil	
Units	mg/kg		mg/kg		mg/kg		mg/kg	
Date Sampled	6/23/98		6/23/98		6/23/98		6/23/98	
Time Sampled	1329		1336		1343		1403	
% Moisture	5		4		7		5	
pH	N/A		N/A		N/A		N/A	
Dilution Factor	5.0		1.0		1.0		10.0	
	Result	VQ	Result	VQ	Result	VQ	Result	VQ
Lead	14		44		<25		<25	
Antimony	—		—		<5		10	

VQ - Validation Qualifier

## Data Summary Table

Site: FNTC - Bainbridge - Salvage Yard Confirmation Results

2 of 2

Lab: Gascoyne Laboratories

Reviewer: Michael J. Lacy, Ph.D.

Date: 07 October 1999

Report Number: 9903635

Sample I.D.	2-SS-7		2-SS-7W	
Matrix	Soil		Soil	
Units	mg/kg		mg/kg	
Date Sampled	6/23/98		6/23/98	
Time Sampled	1343		1403	
% Moisture	7		5	
pH	N/A		N/A	
Dilution Factor	1.0		10.0	
	Result	VQ	Result	VQ
Napthalene	<0.36		<0.37	
Acenaphthylene	<0.36		<0.37	
Acenaphthene	<0.36		<0.37	
Fluorene	<0.36		<0.37	
Phenanthrene	<0.36		<0.37	
Anthracene	<0.36		<0.37	
Fluoranthene	<0.36		<0.37	
Pyrene	<0.36		<0.37	
Benzo(a)Anthracene	<0.36		<0.37	
Chrysene	<0.36		<0.37	
Benzo(b)Fluoranthene	<0.36		<0.37	
Benzo(k)Fluoranthene	<0.36		<0.37	
Benzo(e)Pyrene	<0.36		<0.37	
Indeno(1,2,3-cd)Pyrene	<0.36		<0.37	
Dibenz(a,h)Anthracene	<0.36		<0.37	
Benzo(g,h,i)Perylene	<0.36		<0.37	

VQ - Validation Qualifier

***ATTACHMENT C***

***Laboratory Reported Results***



# Gascoyne Laboratories, Inc.

Baltimore, MD 21224

## REPORT OF ANALYSIS

(410) 633-1000

FAX NO.  
(410) 633-5443

www.gascoyne.com

Page 11 of 16

Report no: 9903661

Client: IT/OHM Corporation

Sample Id: Submitted samples: 2-SS-6; GRAB collected on 28-Jun-99(14:50)

Laboratory Sample Number: 990014243

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
Lead(Pb)	14 ppm-dwb	5 ppm-dwb	EPA-6010B	PDB	01-Jul-99(19:42)



# Gascoyne Laboratories, Inc.

Baltimore, MD 21224

(410) 633-1800

FAX NO.  
(410) 633-5443

[www.gascoyne.com](http://www.gascoyne.com)

## REPORT OF ANALYSIS

Page 12 of 16

Report no: 9903661

Client: IT/OHM Corporation

Sample Id: Submitted samples: 2-SS-6W; COMP collected on 28-Jun-99(14:52)

Laboratory Sample Number: 990014244

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
Lead(Pb)	44 ppm-dwb	5 ppm-dwb	EPA-6010B	PDB	01-Jul-99(19:46)



# Gascoyne Laboratories, Inc.

Baltimore, MD 21224

(410) 633-1800

FAX NO.  
(410) 633-5443

www.gascoyne.com

## REPORT OF ANALYSIS

Page 13 of 16

Report no: 9903661

Client: IT/OHM Corporation

Sample Id: Submitted samples: 2-SS-7; GRAB collected on 28-Jun-99(14:55)

Laboratory Sample Number: 990014245

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
Naphthalene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Acenaphthylene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Acenaphthene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Fluorene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Phenanthrene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
acene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Fluoranthene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Pyrene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Benzo(a)Anthracene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Chrysene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Benzo(b)Fluoranthene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Benzo(k)Fluoranthene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Benzo(a)Pyrene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Indeno(1,2,3-cd)Pyrene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Dibenz(a,h)Anthracene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Benzo(g,h,i)Perylene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	06-Jul-99(15:36)
Nitrobenzene-d5(surrogate)	72 % Rec	NA	EPA-8270C	MYD	06-Jul-99(15:36)
2-Fluorobiphenyl(surrogate)	63 % Rec	NA	EPA-8270C	MYD	06-Jul-99(15:36)
Terphenyl-d14(surrogate)	75 % Rec	NA	EPA-8270C	MYD	06-Jul-99(15:36)
Antimony(Sb)	<25 ppm-dwb	25 ppm-dwb	EPA-6010B	PDB	01-Jul-99(19:50)
Lead(Pb)	<5 ppm-dwb	5 ppm-dwb	EPA-6010B	PDB	01-Jul-99(19:50)



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Baltimore, MD 21224

(410) 633-1800

FAX NO.  
(410) 633-5443

[www.gascoyne.com](http://www.gascoyne.com)

## REPORT OF ANALYSIS

Page 14 of 16

Report no: 9903661

Client: IT/OHM Corporation

Sample Id: Submitted samples: 2-SS-7; GRAB collected on 28-Jun-99(14:55)

Laboratory Sample Number: 990014245

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
Residue at 105°C	92.7 %-arb	0.01 %-arb	CLP-SOW-ILM04.0	DMW	02-Jul-99(10:30)



# Gascoyne Laboratories, Inc.

Baltimore, MD 21224

(410) 633-1800

FAX NO.  
(410) 633-5443

www.gascoyne.com

## REPORT OF ANALYSIS

Page 15 of 16

Report no: 9903661

Client: IT/OHM Corporation

Sample Id: Submitted samples: 2-SS-7W; COMP collected on 28-Jun-99(14:57)

Laboratory Sample Number: 990014246

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
Naphthalene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Acenaphthylene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Acenaphthene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Fluorene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Phenanthrene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Fluoranthene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Pyrene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Benzo(a)Anthracene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Chrysene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Benzo(b)Fluoranthene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Benzo(k)Fluoranthene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Benzo(a)Pyrene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Indeno(1,2,3-cd)Pyrene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Dibenz(a,h)Anthracene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Benzo(g,h,i)Perylene	<0.37 ppm-dwb	0.37 ppm-dwb	EPA-8270C	MYD	06-Jul-99(16:16)
Nitrobenzene-d5(surrogate)	75 % Rec	NA	EPA-8270C	MYD	06-Jul-99(16:16)
2-Fluorobiphenyl(surrogate)	65 % Rec	NA	EPA-8270C	MYD	06-Jul-99(16:16)
Terphenyl-d14(surrogate)	85 % Rec	NA	EPA-8270C	MYD	06-Jul-99(16:16)
Antimony(Sb)	<25 ppm-dwb	25 ppm-dwb	EPA-6010B	PDB	01-Jul-99(19:53)
Lead(Pb)	10 ppm-dwb	5 ppm-dwb	EPA-6010B	PDB	01-Jul-99(19:53)



# Gascoyne Laboratories, Inc.

Baltimore, MD 21224

(410) 633 1800

FAX NO.  
(410) 633-5443

[www.gascoyne.com](http://www.gascoyne.com)

## REPORT OF ANALYSIS

Page 16 of 16

Report no: 9903661

Client: IT/OHM Corporation

Sample Id: Submitted samples: 2-SS-7W; COMP collected on 28-Jun-99(14:57)

Laboratory Sample Number: 990014246

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
Residue at 105°C	89.3 %-arb	0.01 %-arb	CLP-SOW-ILM04.0	DMW	02-Jul-99(10:30)

***ATTACHMENT D***

***Laboratory Reported Tentatively Identified Compounds***

(Not Applicable)

***ATTACHMENT E***

***Support Documentation***

**CASE NARRATIVE  
GASCOYNE LABORATORIES, INC.**

Report Number: 9903661-QC  
Report To: OHM/TT  
2790 Mosside Blvd.  
Monroeville, PA 15146

July 16, 1999  
Page 1 of 2

Project: Bainbridge 919568

Date Samples Received: June 28, 1999

Sample Numbers	Sampling Date	Matrix	9903661 Laboratory ID	**9903728 Laboratory ID
2-SS-16	06/28/99	Soil	990014235	990014490
2-SS-16W	06/28/99	Soil	990014236	990014491
2-SS-15	06/28/99	Soil	990014237	
2-SS-15W	06/28/99	Soil	990014238	
2-SS-14	06/28/99	Soil	990014239	990014492
2-SS-14W	06/28/99	Soil	990014240	990014493
2-SS-4	06/28/99	Soil	990014241	
2-SS-4W	06/28/99	Soil	990014242	
2-SS-6	06/28/99	Soil	990014243	990014494
2-SS-6W	06/28/99	Soil	990014244	990014495
2-SS-7	06/28/99	Soil	990014245	
2-SS-7W	06/28/99	Soil	990014246	

\*\* The Percent Residue results for several samples are reported in Report of Analysis No. 9903728

The samples were collected by the client and were transported to Gascoyne Laboratories via Gascoyne Laboratories courier. The courier relinquished the samples to Gascoyne personnel in the sample control department for log-in. All sample containers were checked and it was noted that the containers were in satisfactory condition.

The following requested test parameters were performed by Gascoyne Laboratories:

- \* Lead and Antimony analysis, using EPA Method 6010B
- \* Polynuclear Aromatic Hydrocarbons (PAHs), using EPA Method 8270C

Reference: Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Office of Solid Waste and Emergency Response, USEPA, Wash., DC, November 1986; Final Update I (07/92), Final Update II (09/94), Final Update III (12/96)

NOTES: The method of analysis of the samples for PAHs was stated on the Chain-of-Custody as EPA Method 8310. The client was contacted 06/29/99 and the method was changed to EPA Method 8270C at the request of the laboratory.

The client requested Matrix Spike/ Matrix Spike Duplicate analysis for sample 990014242.

**CASE NARRATIVE  
GASCOYNE LABORATORIES, INC.**

Report Number: 9903661-QC  
Report To: OHM/IT  
2790 Mosside Blvd.  
Monroeville, PA 15146

July 16, 1999  
Page 2 of 2

Project: Bainbridge 919568

All laboratory quality control parameters were met.

Enclosed are the following:

1. Report of Analysis
2. Chain-of-Custody and Cooler Receipt Form
3. Case Narrative
4. Quality Control Data Package – 124 pages

GASCOYNE LABORATORIES, INC.



June A. Main  
Quality Assurance Officer



## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD\*

COLOTT#152 TempB (pg. 1)  
Reference Document No. 59827  
Page 1 of 1

Project Name/No.	1 <u>Barrabulge 919568</u>	Samples Shipment Date	7 <u>6/28/99</u>
Sample Team Members	2 <u>Trent/Klinger</u>	Lab Destination	8 <u>Gascoyne Labs</u>
Profit Center No.	3 <u>                    </u>	Lab Contact	9 <u>410-633-1800</u> <u>Tina Kelly @ 134</u>
Project Manager	4 <u>L. Stearns</u>	Project Contact/Phone	12 <u>410-378-3450</u> <u>Dick Trent</u>
Purchase Order No.	6 <u>919568701</u>	Carrier/Waybill No.	13 <u>Lake pick up</u>
Required Report Date	11 <u>7 days</u>		

**ONE CONTAINER PER LINE**

Bill to: <sup>5</sup> IT Corp  
2790 Mosside Blvd  
Monroeville, PA 15146

Port to: <sup>10</sup> 412-380-0699  
Fax to Larry Stearns  
IT Corp  
2790 Mosside Blvd  
Monroeville, PA 15146

## ONE CONTAINER PER LINE

Sample Number <sup>14</sup>	Sample Description/Type <sup>15</sup>	Date/Time Collected <sup>16</sup>	Container Type <sup>17</sup>	Sample Volume <sup>18</sup>	Pre-servative <sup>19</sup>	Requested Testing Program <sup>20</sup>	Condition on Receipt <sup>21</sup>	Disposal Record No. <sup>22</sup>
2-SS-f	Grab SYB Bru sand silt	6/28/99 1450	1-803	803	4°C	Total lead 6010	FOR LAB USE ONLY	
2-SS-6W	Comp 3 walls SYB Bru sand silt	6/28/99 1452				Total lead 6010		
2-SS-7	Grab SYB Bru sand silt	6/28/99 1455				Total lead: Antimony PAH E310 8270		
2-SS-7W	Comp 4 walls SYB Bru sand silt	6/28/99 1457				Total lead: Antimony PAH E310 8270		
							FOR LAB USE ONLY	

Special Instructions: <sup>23</sup> Fax results to Larry Stearns @ 412-380-0699

Possible Hazard Identification: 24

Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal: 25

Return to Client ☐ Disposal by Lab ☒ Archive ☐ (mos.)

Turnaround Time Required: 26

Normal ☐ Rush ☒ 7 days

QC Level: 27

1.1.1 11.03

Project Specific (specify): Navy NFESC Level C

1. Relinquished by <sup>28</sup> Dick Treater  
(Signature/Affiliation) Dubois

Date: 6/28/99  
Time: 1550

1. Received by 28  
(Signature/Affiliation)

Date: 6/28/99  
Time: 1:42

2. Relinquished by \_\_\_\_\_  
(Signature/Affiliation)

Date: 600 DT  
Time: 20/17 6/28/99

2. Received by  
[Signature/Affiliation] M. J. ...

Date: 6-28-97  
Time: 1:55

**3. Relinquished by**  
(Signature/Affiliation)

Date: 1033  
Time:

3. Received by  
(Signature/Affiliation)

Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Comments: 29

ents: 29  
Fax results also to Dick Trenter and Frank Zepka  
410-378-3232 202-433-7018

White: To accompany samples

Yellow: Field copy

\* See back of form for special instructions.

# Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\BNAJN25.M (RTE Integrator)  
 Title : GLI BNA Calibration  
 Last Update : Wed Jul 07 13:20:56 1999  
 Response via : Initial Calibration

Non-Spiked Sample: GB050.D

Spike Sample	Spike Duplicate Sample
File ID : GB051.D	GB052.D
Sample : 9903661-14242 (MS)	9903661-14242 (MSD)
Acq Time: 6 Jul 1999 14:14	6 Jul 1999 14:55

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC RPD	Limits % Rec
Phenol	1.8	150	129	126	85	83	3	42	12-110
2-Chlorophenol	0.0	150	129	123	86	82	5	40	27-123
1,4-Dichlorobenzene	0.0	100	69	66	69	66	4	28	36- 97
N-Nitroso-di-n-propy	0.0	100	80	80	80	80	0	38	41-116
1,2,4-Trichlorobenze	0.0	100	75	73	75	73	2	28	39- 98
4-Chloro-3-methylphe	0.0	150	157	155	105#	103#	2	42	23- 97
Acenaphthene	1.4	100	75	74	74	73	2	31	46-118
2,4-Dinitrotoluene	0.0	100	69	70	69	70	2	38	24- 96
4-Nitrophenol	0.0	150	146	147	97#	98#	1	50	10- 80
Pentachlorophenol	0.0	150	74	86	50	57	14	50	9-103
Pyrene	21.6	100	118	116	96	94	2	31	26-127

# - Fails Limit Check

BNAJN25.M

Wed Jul 07 15:44:05 1999

RPT1

# MSD MSD Recoveries for  
 4 CHLORO-3 METHYLPHENOL  
 4 NITROPHENOL > UPPER  
 LIMIT

# Not target compounds 70% 07/09/95  
 100%

## **OVERVIEW**

Three (3) soil samples were analyzed for pesticides and one was also analyzed for polyaromatic hydrocarbons (PAHs) by EPA SW-846 Methods 8081 (pesticides) and 8270 (PAHs). No site-specific Quality Control sample were analyzed. Gascoyne Laboratories, located in Baltimore, MD, performed the analyses.

## **SUMMARY**

The samples were analyzed successfully.

## **MAJOR PROBLEMS**

No major problems with the validity of the analytical data were found.

## **MINOR PROBLEMS**

No minor problems with the validity of the analytical data were found.

## **NOTES**

- 4-Chloro-3-methylphenol and 4-nitrophenol were recovered high in both the semivolatile matrix spike and matrix spike duplicate analyses. The laboratory control sample recoveries for these compounds were acceptable. Since they are not polyaromatic hydrocarbons, the analytical results were accepted without qualification.

## **REPORT CONTENT STATEMENT**

These data were reviewed in accordance with USEPA Region III Modifications to National Functional Guidelines for Organic Data Review: Multi-Media, Multi-Concentration (OLMO1.0-OLMO1.9) for Semivolatile Organic Compounds and Pesticides/Polychlorinated Biphenyls. The text of this report only addresses items which affect the validity of the data contained therein.

## ***ATTACHMENT A***

### ***Glossary of Data Qualifiers***

## *Glossary of Data Qualifier Codes*

### **Codes Relating to Identification**

(Confidence Concerning Presence or Absence of Compounds)

U = Not Detected. The associated number indicates the approximate sample concentration necessary to be detected.

(No Code) = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unreliable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm the presence or absence in future sampling efforts.

### **Codes Related to Quantitation**

(Can be used for both positive results and sample quantitation limits)

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

### **Other Codes**

Q = No analytical result.

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

***ATTACHMENT B***

***Data Summary Forms***

## Data Summary Table

Site: FNTC - Bainbridge - Salvage Yard Confirmation Results

1 of 2

Lab: Gascoyne Laboratories

Reviewer: Michael J. Lacy, Ph.D.

Date: 07 October 1999

Report Number: 9903841

Sample I.D.	EB-N-Con		EB-M-Con		EB-S-Con	
Matrix	Soil		Soil		Soil	
Units	mg/kg		mg/kg		mg/kg	
Date Sampled	7/12/99		7/12/99		7/12/99	
Time Sampled	0905		0915		0925	
% Moisture	12.2		8.7		12.6	
pH	N/A		N/A		N/A	
Dilution Factor	5.0		1.0		1.0	
	Result	VQ	Result	VQ	Result	VQ
alpha-BHC	<0.06	U	<0.05	U	<0.06	U
beta-BHC	<0.06	U	<0.05	U	<0.06	U
gamma-BHC (Lindane)	<0.06	U	<0.05	U	<0.06	U
delta-BHC	<0.06	U	<0.05	U	<0.06	U
Heptachlor	<0.06	U	<0.05	U	<0.06	U
Aldrin	<0.06	U	<0.05	U	<0.06	U
Heptachlor Epoxide	<0.06	U	<0.05	U	<0.06	U
Endosulfan I	<0.1	U	<0.1	U	<0.1	U
4,4'-DDE	<0.1	U	<0.1	U	<0.1	U
Dieldrin	<0.1	U	<0.1	U	<0.1	U
Endrin	<0.1	U	<0.1	U	<0.1	U
Endosulfan II	<0.3	U	<0.3	U	<0.3	U
Endrin Aldehyde	<0.3	U	<0.3	U	<0.3	U
4,4'-DDD	<0.3	U	<0.3	U	<0.3	U
Endosulfan Sulfate	<0.3	U	<0.3	U	<0.3	U
4,4' DDT	<0.3	U	<0.3	U	<0.3	U
Technical Chlordane	<1	U	<1	U	<1	U
Toxaphene	<3	U	<3	U	<3	U

VQ - Validation Qualifier

# Data Summary Table

Site: FNTC - Bainbridge - Salvage Yard Confirmation Results  
 Lab: Gascoyne Laboratories  
 Reviewer: Michael J. Lacy, Ph.D.  
 Date: 07 October 1999  
 Report Number: 9903841

2 of 2

Sample I.D.	EB-M-Con	
Matrix	Soil	
Units	mg/kg	
Date Sampled	7/12/99	
Time Sampled	0915	
% Moisture	8.7	
pH	N/A	
Dilution Factor	1.0	
	Result	VQ
Napthalene	<0.36	
Acenaphthylene	<0.36	
Acenaphthene	<0.36	
Fluorene	<0.36	
Phenanthrene	<0.36	
Anthracene	<0.36	
Fluoranthene	<0.36	
Pyrene	<0.36	
Benzo(a)Anthracene	<0.36	
Chrysene	<0.36	
Benzo(b)Fluoranthene	<0.36	
Benzo(k)Fluoranthene	<0.36	
Benzo(a)Pyrene	<0.36	
Indeno(1,2,3-cd)Pyrene	<0.36	
Dibenz(a,h)Anthracene	<0.36	
Benzo(g,h,i)Perylene	<0.36	

VQ - Validation Qualifier

***ATTACHMENT C***

***Laboratory Reported Results***



# Gascoyne Laboratories, Inc.

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## REPORT OF ANALYSIS

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Report no: 9903841

Client: IT/OHM Corporation

Sample Id: Submitted samples: EB-N-CON; GRAB collected on 12-Jul-99(09:05)

Laboratory Sample Number: 990014932

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
alpha-BHC	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
beta-BHC	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
gamma-BHC(Lindane)	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
delta-BHC	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Heptachlor	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
1	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Heptachlor Epoxide	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Endosulfan I	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
4,4'-DDE	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Dieldrin	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Endrin	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Endosulfan II	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Endrin Aldehyde	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
4,4'-DDD	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Endosulfan Sulfate	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
4,4'-DDT	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Technical Chlordane	<1 ppm-dwb	1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Toxaphene	<3 ppm-dwb	3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(15:53)
Decachlorobiphenyl(surrogate)	98 % Rec	NA	EPA-8081A/8082	MST	13-Jul-99(15:53)
Tetrachloro-m-xylene(surrogate)	88 % Rec	NA	EPA-8081A/8082	MST	13-Jul-99(15:53)

**Sample/Test Notes:**

Extraction started 07/13/99 07:45. Dilution factor = 1.

Residue at 105°C	87.8 %-arb	0.01 %-arb CLP-SOW-ILM04.0	DMW	13-Jul-99(13:30)
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## REPORT OF ANALYSIS

Page 10 of 12

Report no: 9903841

Client: IT/OHM Corporation

Sample Id: Submitted samples: EB-M-CON; GRAB collected on 12-Jul-99(09:15)

Laboratory Sample Number: 990014933

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
alpha-BHC	<0.05 ppm-dwb	0.05 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
beta-BHC	<0.05 ppm-dwb	0.05 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
gamma-BHC(Lindane)	<0.05 ppm-dwb	0.05 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
delta-BHC	<0.05 ppm-dwb	0.05 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Heptachlor	<0.05 ppm-dwb	0.05 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
γ	<0.05 ppm-dwb	0.05 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Heptachlor Epoxide	<0.05 ppm-dwb	0.05 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Endosulfan I	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
4,4'-DDE	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Dieldrin	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Endrin	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Endosulfan II	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Endrin Aldehyde	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
4,4'-DDD	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Endosulfan Sulfate	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
4,4'-DDT	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Technical Chlordane	<1 ppm-dwb	1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Toxaphene	<3 ppm-dwb	3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:22)
Decachlorobiphenyl(surrogate)	95 % Rec	NA	EPA-8081A/8082	MST	13-Jul-99(16:22)
Tetrachloro-m-xylene(surrogate)	72 % Rec	NA	EPA-8081A/8082	MST	13-Jul-99(16:22)

### Sample/Test Notes:

Extraction started 07/13/99 07:45. Dilution factor = 1.

Naphthalene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Acenaphthylene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Acenaphthene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Fluorene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Phenanthrene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Anthracene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Fluoranthene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)



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## REPORT OF ANALYSIS

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Report no: 9903841

Client: IT/OHM Corporation

Sample Id: Submitted samples: EB-M-CON; GRAB collected on 12-Jul-99(09:15)

Laboratory Sample Number: 990014933

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
Pyrene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Benzo(a)Anthracene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Chrysene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Benzo(b)Fluoranthene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Benzo(k)Fluoranthene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Benzo(a)Pyrene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Indeno(1,2,3-cd)Pyrene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Dibenz(a,h)Anthracene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Benzo(g,h,i)Perylene	<0.36 ppm-dwb	0.36 ppm-dwb	EPA-8270C	MYD	13-Jul-99(18:05)
Nitrobenzene-d5(surrogate)	78 % Rec	NA	EPA-8270C	MYD	13-Jul-99(18:05)
2-Fluorobiphenyl(surrogate)	66 % Rec	NA	EPA-8270C	MYD	13-Jul-99(18:05)
Terphenyl-d14(surrogate)	86 % Rec	NA	EPA-8270C	MYD	13-Jul-99(18:05)

**Sample/Test Notes:**

Extraction started 7/13/99. Dilution factor = 1.

Residue at 105°C	91.3 %-arb	0.01 %-arb CLP-SOW-ILM04.0	DMW	13-Jul-99(13:30)
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## REPORT OF ANALYSIS

Page 12 of 12

Report no: 9903841

Client: IT/OHM Corporation

Sample Id: Submitted samples: EB-S-CON; GRAB collected on 12-Jul-99(09:25)

Laboratory Sample Number: 990014934

Parameter	Test Results	Laboratory Reporting Limit	Method	Analyst	Date of Analysis
alpha-BHC	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
beta-BHC	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
gamma-BHC(Lindane)	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
delta-BHC	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Heptachlor	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
in	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Heptachlor Epoxide	<0.06 ppm-dwb	0.06 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Endosulfan I	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
4,4'-DDE	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Dieldrin	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Endrin	<0.1 ppm-dwb	0.1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Endosulfan II	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Endrin Aldehyde	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
4,4'-DDD	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Endosulfan Sulfate	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
4,4'-DDT	<0.3 ppm-dwb	0.3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Technical Chlordane	<1 ppm-dwb	1 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Toxaphene	<3 ppm-dwb	3 ppm-dwb	EPA-8081A/8082	MST	13-Jul-99(16:52)
Decachlorobiphenyl(surrogate)	102 % Rec	NA	EPA-8081A/8082	MST	13-Jul-99(16:52)
Tetrachloro-m-xylene(surrogate)	80 % Rec	NA	EPA-8081A/8082	MST	13-Jul-99(16:52)

### Sample/Test Notes:

Extraction started 07/13/99 07:45. Dilution factor = 1.

Residue at 105°C	87.4 %-arb	0.01 %-arb	CLP-SOW-ILM04.0	DMW	13-Jul-99(13:30)
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***ATTACHMENT D***

***Laboratory Reported Tentatively Identified Compounds***

(Not Applicable)

***ATTACHMENT E***

***Support Documentation***

**CASE NARRATIVE**  
**GASCOYNE LABORATORIES, INC.**

Report Number: 9903762, 9903783, 9903841-QC  
Report To: OHM/TT  
2790 Mosside Blvd.  
Monroeville, PA 15146

July 27, 1999  
Page 1 of 2

Project: Bainbridge 919568

Report of Analysis No. 9903762

Date Samples Received: July 7, 1999

Sample Numbers	Sampling Date	Matrix	Laboratory ID
G1-SW	07/06/99	Soil	990014663
A3-SW	07/06/99	Soil	990014669
H1-SW	07/06/99	Soil	990014670

Report of Analysis No. 9903783

Date Samples Received: July 8, 1999

Sample Numbers	Sampling Date	Matrix	Laboratory ID
B4-D-CON	07/07/99	Soil	990014736
E1-A-CON	07/07/99	Soil	990014737
E4-A-CON	07/07/99	Soil	990014738
E7-D-CON	07/07/99	Soil	990014739
E10 A CON	07/07/99	Soil	990014740
E13-A-CON	07/07/99	Soil	990014741
H1-D-CON	07/07/99	Soil	990014742
H4-D-CON	07/07/99	Soil	990014743
H10-A-CON	07/07/99	Soil	990014744

Report of Analysis No. 9903841

Date Samples Received: July 12, 1999

Sample Numbers	Sampling Date	Matrix	Laboratory ID
H13-B-CON	07/10/99	Soil	990014929
G16-B-CON	07/10/99	Soil	990014930
G19-B-CON	07/10/99	Soil	990014931
EB-N-CON	07/12/99	Soil	990014932
EB-M-CON	07/12/99	Soil	990014933
EB-S-CON	07/12/99	Soil	990014934

The samples were collected by the client and were transported to Gascoyne Laboratories via Gascoyne Laboratories courier. The courier relinquished the samples to Gascoyne personnel in the sample control department for log-in. All sample containers were checked and it was noted that the containers were in satisfactory condition.

The following requested test parameters were performed by Gascoyne Laboratories:

- \* Pesticide analysis, using EPA Method 8081A
- \* TAL Metals analysis, using EPA Methods 6010B and 7471A
- \* Polynuclear Aromatic Hydrocarbons (PAHs), using EPA Method 8270C

Reference: Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Office of Solid Waste and Emergency Response, USEPA, Wash., DC, November 1986; Final Update I (07/92), Final Update II (09/94), Final Update III (12/96)

Gascoyne Laboratories, Inc.

**CASE NARRATIVE**  
**GASCOYNE LABORATORIES, INC.**

Report Number: 9903762, 9903783, 9903841-QC  
Report To: OHM/TT  
2790 Mosside Blvd.  
Monroeville, PA 15146

July 27, 1999  
Page 2 of 2

Project: Bainbridge 919568

The client requested Matrix Spike/ Matrix Spike Duplicate analysis for the following samples: 990014669, 990014742, and 990014930. For Pesticide analysis, the Matrix Spike/ Matrix Spike Duplicate for the analytical batch was sample 990014669. For PAH analysis, the Matrix Spike/ Matrix Spike Duplicate for the analytical batch was sample 990014242 (see Report of Analysis 9903661).

All laboratory quality control parameters were met with the following exceptions:

1. Matrix Spike / Matrix Spike Duplicate recoveries, sample 990014742 and 990014930 - EPA Method 6010B Aluminum and Iron analysis: The concentration of the matrix spike / matrix spike duplicate was insufficient for the level of target analyte in the sample. The sample was post digestion spiked in duplicate, with acceptable recoveries for both elements. The sample data was not flagged.
2. Matrix Spike recovery, sample 990014742 - EPA Method 6010B Antimony analysis: The recovery of the Matrix Spike was outside limits of acceptability. The recovery of the Matrix Spike Duplicate was within limits of acceptability, as was the recovery of the Laboratory Control Sample. The sample was post-digestion spiked with an acceptable recovery. The sample data was not flagged.
3. Matrix Spike Duplicate recoveries, sample 990014742- EPA Method 6010B Calcium, Copper, and Nickel analyses: The Matrix Spike Duplicate recoveries for these elements were outside limits of acceptability. Recoveries of the Matrix Spike for each element were within limits of acceptability, as was the recovery of the Laboratory Control Sample. The sample was post-digestion spiked with acceptable recoveries for each element. The sample data was not flagged.
4. Matrix Spike / Matrix Spike Duplicate RPD, sample 990014742 - EPA Method 6010B Silver analysis: The recoveries of both the MS and the MSD were within limits of acceptability, however the RPD value between the two recoveries was above the acceptance limit. The Laboratory Control Sample and post-digestion spike recoveries were acceptable, and all sample data in the analytical batch was non-detect for this element. The data was not flagged.
5. Matrix Spike / Matrix Spike Duplicate recoveries, sample 990014930 - EPA Method 6010B Antimony analysis: The recoveries of the Matrix Spike and Matrix Spike Duplicate were outside limits of acceptability. The recovery of the Laboratory Control Sample was within limits of acceptability. The sample was post-digestion spiked with an acceptable recovery. The sample data was not flagged.

NOTE: The analyst that prepared the digestates of the samples for metals determination noted a considerable amount of rocks in sample 990014742.

Enclosed are the following:

1. Report of Analysis
2. Chain-of-Custody and Cooler Receipt Form
3. Case Narrative
4. Quality Control Data Package - 629 pages

GASCOYNE LABORATORIES, INC.



June A. Main  
Quality Assurance Officer Gascoyne Laboratories, Inc.



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD\*

Reference Document No. 0003841  
Page 1 of 1 0.7

Project Name/No. 1 Bainbridge 919568 Samples Shipment Date 7 7/12/99  
Sample Team Members 2 Treater/Klinger Lab Destination 8 Gascoyne Labs  
Profit Center No. 3 Lab Contact 9 Tina Kelly @ 134  
Project Manager 4 L. Stearns Project Contact/Phone 12 410-378-3450  
Purchase Order No. 6 919568701 Carrier/Waybill No. 13 Lab pickup  
Required Report Date 11 3 days 7/15/99

Bill to: 5 IT Corp  
2790 Moss Side Blvd  
Monroeville, PA 15146  
Report to: 10 412-380-0699  
Fax to Larry Stearns  
IT Corp  
2790 Moss Side Blvd  
Monroeville, PA 15146

## ONE CONTAINER PER LINE

Sample Number <sup>14</sup>	Sample Description/Type <sup>15</sup>	Date/Time Collected <sup>16</sup>	Container Type <sup>17</sup>	Sample Volume <sup>18</sup>	Pre-servative <sup>19</sup>	Requested Testing Program <sup>20</sup>	Condition on Receipt <sup>21</sup>	Disposal Record No. <sup>22</sup>
<u>28 H13-B-CON</u>	<u>Grab Bldg 683 soil</u> <u>Grid H13 Conf</u>	<u>7/10/99</u> <u>1045</u>	<u>2-403</u>	<u>803</u>	<u>4°C</u>	<u>Total Pesticides, 8081</u> <u>PAH, 8270</u>		<u>T. Stearns</u>
<u>30 G16-B-CON</u>	<u>Grab Bldg 683 soil</u> <u>Grid G16 Conf</u>	<u>7/10/99</u> <u>0805</u>	<u>3-403</u>	<u>1203</u>		<u>Total Pesticides, 8081</u> <u>TAL Metals 6010/7471</u>	<u>PAH, 8270</u> <u>TAL Metals</u>	<u>MS/MSD</u>
<u>131 G19-B-CON</u>	<u>Grab Bldg 683 soil</u> <u>Grid G19 Conf</u>	<u>7/10/99</u> <u>0810</u>	<u>1-403</u>	<u>403</u>		<u>Total Pesticides</u> <u>8081</u>		<u>QC3</u>
<u>132 EB-N-CON</u>	<u>Grab SYEB soil</u> <u>Int Grds 7,8,9,10</u>	<u>7/12/99</u> <u>0905</u>	<u>1-403</u>	<u>403</u>		<u>Total Pesticides</u> <u>8081</u>		
<u>133 EB-M-CON</u>	<u>Grab SYEB soil</u> <u>Int Grds 15,16,17,18</u>	<u>7/12/99</u> <u>0915</u>	<u>2-403</u>	<u>803</u>		<u>Total Pesticides, 8081</u> <u>PAH, 8270</u>		
<u>134 EB-S-CON</u>	<u>Grab SYEB soil</u> <u>Int Grds 23,24,25,26</u>	<u>7/12/99</u> <u>0925</u>	<u>1-403</u>	<u>403</u>		<u>Total Pesticides</u> <u>8081</u>		

Special Instructions: 23 Fax results to Larry Stearns @ 412-380-0699

Possible Hazard Identification: 24 Pesticides

Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal: 25

Return to Client ☐ Disposal by Lab ☒ Archive ☐ (mos.)

Turnaround Time Required: 26

Normal ☐ Rush ☒ 3 days

QC Level: 27

I. ☐ II. ☐ III. ☒ Project Specific (specify): Navy NFESC Level C

1. Relinquished by 28 Dick Treater Date: 7/12/99  
(Signature/Affiliation) Dick Treater/IT Time: 1500

1. Received by 28 Date: 7/12/99  
(Signature/Affiliation) BL Time: 1500

2. Relinquished by 64 Date: 7-12-99  
(Signature/Affiliation) [Signature] Time: 1607

2. Received by Melanie Husek Date: 7-12-99  
(Signature/Affiliation) [Signature] Time: 1607

3. Relinquished by 64 Date: 7-12-99  
(Signature/Affiliation) [Signature] Time: 1607

3. Received by 64 Date: 7-12-99  
(Signature/Affiliation) [Signature] Time: 1607

Comments: 29  
Fax results to Dick Treater 410-378-3232 and Frank Zepka 202-433-7018

Write: To accompany samples

Yellow: Field copy

\* See back of form for special instructions.